**Self Study 2 - Sept. 7, 2012**

**Disease Topic for Self Study**

Topic: The X-Linked Neurodegenerative Disease, Adrenoleukodystrophy (X-ALD)

Related Lectures in Block I: Lipids I: Fatty Acid Beta-Oxidation, and Lipids II: Fatty Acid Synthesis (Maltese)

Learning Objectives:

1) Describe the major symptoms of X-ALD.  
2) Explain why very long chain fatty acids accumulate in patients with X-ALD.  
3) Explain why feeding a mixture of unsaturated fatty acids (oleic and erucic acids), “Lorenzo’s Oil” has shown some benefits in treating patients with X-ALD.  
4) Describe the underlying biochemical defect in X-ALD.

Reference Material:

Key Reference: Web Site: [http://www.nabt.org/websites/institution/index.php?p=486](http://www.nabt.org/websites/institution/index.php?p=486%20)

 The movie, “Lorenzo’s Oil”, as a teaching tool, by Bradley J. Stith, Ph.D.

Supplemental Reference:   
  
Journal Article: Moser, H.W. et al. “Adrenoleukodystrophy: new approaches to a neurodegenerative disease”, Journal of the American Medical Association, *294*: 3131-3134, 2005

<http://jama.ama-assn.org/cgi/reprint/294/24/3131>

(Also available on-line through Ohio Link electronic journal collection).